



Preface: Advancing Environmental Justice through Community-Based Participatory Research

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For the last several decades, a global environmental justice movement has challenged the disproportionate burden that environmental degradation and pollution have had on the health and well-being of communities of color and low-income communities. The struggle for environmental justice by people of color, who bear the brunt of pollution in the United States and around the world, has escalated with a growing awareness that this disproportionate burden contributes to egregious disparities in health by race/ethnicity and social class.

The early environmental justice efforts of the 1980s brought forth the First National People of Color Environmental Leadership Summit held in Washington, DC, 24–27 October 1991. This landmark summit was attended by over 900 persons; 350 of the delegates were people of color. Upon jointly developing 17 Principles of Environmental Justice, the delegates returned home with a mandate to organize for change at the grassroots level. In February 1994, in response to these advocacy efforts, President William Clinton issued Executive Order 12898 (1), which charged 11 federal agencies with developing policies and procedures to address the disparate impact of environmental hazards on communities of color and low-income populations.

On that same day, the National Institute of Environmental Health Sciences (NIEHS) hosted an Interagency Symposium On Health Research Needs to Ensure Environmental Justice in Arlington, Virginia. The NIEHS symposium was attended by over 1,100 persons, 400 of whom were environmental justice advocates. This momentous dialogue resulted in an expressed appreciation of the importance of community involvement in setting and implementing research agendas to address environmental justice issues. The scientific community acknowledged that increased attention and funding were needed to effectively respond to egregious health disparities by race/ethnicity and social class, the disproportionate burden of pollution across communities, the impacts of multiple and cumulative exposures—including the potential for synergistic effects—and the special

concerns of susceptible populations, including children, the immuno-compromised, and the aged. Scientists and community leaders agreed to work in partnership to prioritize research needs, gather data, assess environmental exposures, and test interventions to influence public policy in order to protect the environment and the health of all, including those living in communities of color and places that are economically exploited.

Over the last several years, communities throughout the United States and around the world have made progress in effectively addressing their expressed environmental justice concerns. Government agencies and private foundations have funded community–university partnerships to conduct community-based participatory research (CBPR), a model rooted physically and conceptually in community. In CBPR, scientists work in close collaboration with community partners involved in all phases of the research, from the inception of the research questions and study design, to the collection of the data, monitoring of ethical concerns, and interpretation of the study results. Importantly, in CBPR, the research findings are communicated to the broader community—including residents, the media, and policymakers—so they may be utilized to effect needed changes in environmental and health policy to improve existing conditions. Building upon existing strengths and resources, CBPR seeks to build capacity and resources in communities and ensure that government agencies and academic institutions are better able to understand and incorporate community concerns into their research agendas.

The coordination of this special issue of *Environmental Health Perspectives (EHP)* is an outgrowth of such a six-year collaboration between West Harlem Environmental Action (WE ACT), an environmental justice organization; the Harlem Health Promotion Center (Harlem HPC), an academic center dedicated to advancing the science and scholarship of CBPR; and the NIEHS Center for Environmental Health in Northern Manhattan at the Mailman School of Public Health. WE ACT exemplifies an emerging model of community-based action designed to advance environmental health policy and improve the quality of life in New York City and throughout the United States. The Harlem HPC is one of 26 Prevention Research Centers funded by the Centers for Disease Control and Prevention (CDC) and has been at the forefront of incorporating shared governance of the research process between community partners and scientists, both in Harlem and at the U.S. federal level. This partnership has resulted in a variety of environmental justice achievements: air monitoring studies published in peer-reviewed journals, training courses for community leaders on environmental health topics, educational forums for community residents on environmental justice issues, and meaningful input into policy decisions that have addressed, e.g., diesel exhaust exposure in northern Manhattan. In addition, this partnership formed the basis for other collaborations at Columbia University and more broadly, embracing community-based organizations, government agencies, academic research centers,

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and health institutions in northern Manhattan and the South Bronx.

Consistent with its leadership at the U.S. federal level in environmental justice research, NIEHS has been an important supporter of this project from the outset by providing needed funding. In addition, several NIEHS researchers contributed thoughtful commentaries to this monograph [see especially the ethical research agenda proposed by Richard Sharp and his colleague at the University of Oklahoma, Morris Foster (2) and the "CBPR as a tool" framework advanced by Liam O'Fallon and Allen Dearth (3)].

The environmental and health research published in this issue plays an important role in advancing environmental justice locally and throughout the world. Asthma is a health condition that may be determined, in part, by environmental allergens and airborne contaminants, and that is distributed disproportionately among population groups. Jarvis Chen and his colleagues (4), in a population-based study of 173,859 adults in Northern California, were able to document racial/ethnic disparities in asthma and hay fever, largely independent of education. Gerald Keeler (5) and his partners in the Community Action Against Asthma collaboration in Detroit, Michigan, found that indoor exposures to particulates were greater than outdoor exposures and that local patterns of exposure were consistent with the location of heavy industry and diesel truck traffic. Virginia Rauh and her associates (6) in northern Manhattan reported positive associations between housing deterioration and cockroach allergen levels, after adjusting for income and ethnicity, with independent effects of residential stability. Together, these research reports confirm that both race/ethnicity and social class are essential in understanding the determinants and distribution of asthma in populations, as well as in devising needed interventions in communities.

Despite efforts to include a diversity of environmental justice topics in this issue, CBPR devoted to asthma has received more funding to date from U.S. federal agencies than CBPR focused on other health outcomes. Nonetheless, Lorraine Malcoe and her colleagues (7) in New Mexico were funded on a CBPR initiative to assess the

relationship of mining waste to lead poisoning in rural children. While no differences were found in blood lead levels or any patterns of excess lead sources by race/ethnicity, soil and dust lead derived from mining waste was deemed a health hazard to both Native American and White children, even at levels far below current residential standards.

Other CBPR reports in this issue address pesticide safety among farmworkers in North Carolina, sustenance fishing hazards in Brooklyn, New York, and the hog industry in Mississippi (8–10). Absent are CBPR articles on other crucial environmental justice topics globally, including deforestation and loss of biodiversity, agriculture and soil erosion, climate change and stratospheric ozone depletion, and stockpiling of nuclear weapons and wastes.

An essential component of every CBPR project is to distribute the research findings to all partners using language that is understood and respectful of the contributions of each participant. Accordingly, this supplement of *EHP*, intended for environmental and health researchers, is being published in April 2002 to help commemorate Earth Day. In addition, a companion journal, intended for community audiences and policy makers, will be published in October 2002 by WE ACT to coincide with the Second National People of Color Environmental Leadership Summit taking place in Washington, DC. The companion journal will feature the research results presented here in accessible language and formats, along with commentaries by environmental justice leaders.

The CBPR findings published in this issue of *EHP* on a variety of environmental justice topics, although important to document and disseminate, are only preliminary steps. Clearly, interventions designed to address the glaring disparities in health among population groups benefit considering larger social and structural determinants of health. To effect meaningful change in the environments and health of communities of color and low-income communities, community-based organizations and leaders must engage the larger public and work in coalition with government agencies, academic institutions, public and private foundations, policymakers, legal experts, and local businesses.

In closing, we dedicate this issue of *EHP* to the environmental and health advocates, community leaders, researchers, scholars, practitioners, and funding agencies that have worked together despite formidable challenges to solve problems of environmental racism, economic injustice, and agricultural sustainability. We look forward to enlisting other environmental and health scientists, especially the readers of *EHP*, to work collaboratively with communities to raise the science and scholarship of CBPR, and thereby advance environmental justice and the health of all.

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